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January, 1996

Dear Colleague:

Enclosed is the 1995 report for the state and local government market sector, one of fifteen such markets or industries tracked by INPUT as part of its U.S. Market Analysis Program (MAP).

The report examines the information services needs of this marketplace, with special attention to the unique requirements of the public sector and the technological and economic realities that are influencing both state and local governments. The trends, events and issues driving this market are identified and expenditures are forecast for each of seven information services product/service categories.

Key topics discussed include increasing budget pressures, public access requirements, privacy and security concerns, and the desire of many public entities to prolong the life of existing systems by updating and expanding them. The analysis of the technology trends and other industry issues, together with other INPUT research, is used to project the growth in the state and local government market for information services over the next five years—a market that is growing at a steady 16% compound annual rate through the year 2000.

Your purchase of this report includes access to our consultants who will be happy to answer any questions that you may have regarding this, or other INPUT reports which you receive.

You should file this report in your MAP Program binder, behind the tab marked State and local government.

Sincerely,

Robert L. Goodwin
Vice President

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Information Services Markets, 1995-2000
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List of Exhibits

Table of Contents

Exhibits

I

Introduction

A

Purpose and Methodology

1. Purpose

The objectives of this Market Analysis Program industry sector report are to:

- Introduce the reader to the state and local government sector structure and demographics
- Identify the business issues and trends that are driving the use of information services in the sector
- Analyze how state and local government organizations use information services and the issues facing their information systems organizations
- Quantify the information services market in the state and local government sector, including the factors driving market demand for each product/service category

2. Methodology

This report is based on data gathered during 1995 as part of INPUT's ongoing market analysis program. Trends, market size, and growth rates are based primarily on interviews with state and local government users and the IS vendors serving this sector. INPUT maintains ongoing relationships with, and a database of, all users and vendors that it interviews. Interviewees for the research portion of this report were selected from the database of contacts.

To prepare this report, INPUT interviewed end users and information systems executives in large and small state and local governments. Data obtained from the interviews was used as a base from which to analyze spending levels and patterns, and trends in the application of technology.

Data gathered from interviews was augmented by budget data received from such agencies.

In addition to interviews with state and local government information users and information systems executives, INPUT interviewed leading vendors in the sector. Vendor interviews were conducted to develop an understanding of vendor issues and opportunities.

In addition to the data gathered from interviews of vendors and users, extensive use was made of INPUT's corporate library. The resources of this library include on-line periodical databases, subscriptions to over 50 computer and general business periodicals, continually updated files on over 3,000 information services vendors, and up-to-date U.S. Department of Commerce publications on industry and employment statistics.

B
Industry Structure

The *Statistical Abstract of the United States—1994* identifies 86,742 state and local governments extant as of the end of 1992. (The federal government gathers data only once every five years, for years ending with a two or a seven.) Of the total, there are approximately 86,600 local government entities, grouped as follows:

- 3,000 County
- 19,300 Municipal
- 16,600 Township and Town
- 14,600 School District
- 33,100 Special District

When considering their needs and requirements for information services, it is necessary to note the following:

- INPUT analyzes the education market (including public school districts) as a separate vertical sector. The number of school districts therefore must be subtracted from the total.
- Of the total counties (3,043), 418 of them (13%) have a population of more than 100,000. At the other end of the spectrum, 24% (728) of the counties have populations of less than 10,000 people.

- Of the total municipalities (19,279), only 6% (1,071) have populations of more than 25,000. However, these represent 69% of the population of this group.

- Thirty-seven percent of the towns and townships (359) have populations of more than 25,000. However, unlike municipalities, 63% of the population is in towns and townships of less than 25,000.

After considering factors such as uniqueness of needs and areas of greatest opportunity, INPUT believes that the state and local government market can be divided into two major groups:

- The state and local government entities (local, county and municipal) that represent the majority of the population

- An additional group composed of the special districts that provide service to one or more local government areas

This report focuses on these entities as the source of greatest opportunity.

C
Organization and Contents

Following this introduction chapter, the report is organized into three additional chapters and one appendix.

- Chapter II—*Trends, Issues and Events*—describes the issues and trends that are driving the use of information services within the state and local government sector.

- Chapter III—*Information Services Market*—provides an overview of the basic business processes in the state and local government sector and their supporting information systems applications, and provides a forecast for information services in the state and local government market by product/service sector.

- Chapter IV—*Conclusions and Recommendations*—provides a summary of the major areas of opportunity resulting from the research, and recommendations to vendors entering or expanding into the state and local government sector.

- Appendix A presents the Forecast Database and Forecast Reconciliation.

D
General Business Overview

As documented by the U.S. Department of Commerce, economists and business journals, the U.S. economy ended 1994 on a high note—perhaps too high from the Fed's viewpoint—with growth at approximately 4.6%. Since employment has also returned to an acceptable level, there is some concern that the strong growth increases the threat of inflation in 1995. However, January's gain in employment—134,000 people—was well below 1994's monthly average gain of 290,000. This decrease has generally been regarded by both economists and the financial markets as the first solid evidence of slower growth. Most economic observers now feel that growth should slow to around 2% by the third quarter of 1995, giving the American economy what some economists are calling a "soft landing." There is also general agreement that the economy seems to be in a mid-cycle slowdown, and that long term, the risk of that slowdown becoming another period of recession in late 1995 is low.

From a financial markets viewpoint, in 1994 bond yields rose nearly 200 basis points, and the Federal Funds rate was up 250 basis points. In 1995 most market analysts expect the Fed rate to top out at 6.0% (which it has—see below), bond yields to move sideways and S&P 500 earnings to increase approximately 7%—an amount smaller than in 1994. In general, most sectors of the U.S. economy should grow more slowly in 1995 than they did in 1994—the result of slight decreases in productivity and price/cost pressures. U.S. manufacturers are still restructuring, emphasizing cost-cutting and downsizing, and, coupled with the early-1995 weakness of the dollar (especially against the yen), world markets should find U.S. goods attractively priced. Imponderables remain the short-term impact of supports for Mexico's peso and trade disputes with China and Japan. These situations have the potential for significant short-term volatility, but in the long run should have little effect on the U.S. economy's return to modest, steady growth. Inflation in 1995, as measured by the Blue Chip consensus of approximately 50 private-sector economists, is expected to be at a conservative 2.9%, growing slightly through the year 2000 to a maximum of 3.3% (1996 and 1997) and then declining to 3.0 % by the millennium.

In support of the long-term economic theories summarized above, the most encouraging (and pragmatic) sign of a healthy economy was seen on July 7, 1995, when after a prolonged period of rate increases dating back to early 1994, the Federal Reserve lowered the Federal Fund Rate by 1/4%—from 6% to 5.75%. The amount of adjustment is small, but the direction of the move is seen by most financial and business analysts as extremely positive, and a signal that the economy has stabilized and that inflationary influences are now under control.

Overall, however, the outlook for the U.S. economy in 1995 is for controlled, steady growth in the 5.7% range with inflation at about 3%, and corporate after-tax profits at approximately 7%, down slightly from 1994's 10%.

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II

Trends, Issues and Events

A
Trends

State and local governments continue to be caught in a funding squeeze. On the one hand, there are tremendous pressures to increase spending. An aging population is demanding increased health and public safety services, there are still increasing social welfare costs, and inflation—though at its lowest levels in years—drives up the cost of the wages, goods and services needed to operate government.

On the other hand, state and local governments' revenues are flat at best, and in most cases have decreased as the slow growth of the economy and continuing high levels of unemployment have eroded sales and income taxes. In order to leverage the management of such resources as retirement funds, some local governments have resorted to more speculative investments, e.g., using the stock market as any individual might. (This approach, however, can produce disastrous results, as it did in Orange County, California, where over $2 billion of the county's fund assets (on paper) were lost through investments on derivatives.)

Not much help is coming from Washington. Federal budget pressures have caused the shifting of responsibility from the federal to the state level. At the same time, state budget limitations have reduced the states' ability to assist local governments. Government executives generally want to provide more cost-effective methods of delivering services, and many recognize that information systems offer cost-effective alternatives, but are unable to provide additional funding to information systems (IS) departments to implement IS solutions.

As a result, many state and local information systems executives are frustrated in that they are unable to apply the technology-driven solutions that they know could result in improved operational and cost effectiveness—solutions that have already been validated in the commercial sector.

Entrepreneurial Managers—A significant result of these conflicting pressures is the emergence of entrepreneurial managers, particularly at the local government level. They are finding ways to finance information systems solutions that offer quick payback. In addition, they are adept at outsourcing an increasing number of operations, such as parking ticket and ambulance service collections, as well as entire department IS centers, to reduce costs and increase revenues.

Entrepreneurial managers are focusing on the connectivity and interoperability of government systems to improve operational effectiveness. These managers are tying together different systems so that, for example, citizens with unpaid parking tickets cannot renew their vehicle or driver licenses until those tickets have been paid; or taxpayers with delinquent child support payments can not obtain income tax refunds. To achieve this goal, the State of Oregon implemented directory synchronization technology to allow the government's 15 independent E-mail systems to communicate with each other.

On-Line Resources—Use of the Internet, electronic bulletin boards and on-line access to files such as assessment and property records have also been implemented, thereby improving public access to government information without hiring more clerks and increasing operating costs. For example, the State of Texas has installed multimedia kiosks in numerous public locations statewide to give Texans access to state government information.

Know the Market—As noted in INPUT's 1994 report, vendors who can demonstrate fast payback on an investment in their equipment, software, or services can continue to get the attention and support of these entrepreneurial managers. As a result, many information services vendors have learned to deal with the needs, politics, divided management responsibilities, methods of funding and budgeting, and staff problems that are encountered in the state and local government market sector. Selling to this sector, however, still requires careful analysis of the business and political factors and personalities involved in each sales situation.

State and Local Government Information Systems Trends—There has been an increase in commitments by state and local governments that require new IS capabilities. Information services, particularly professional services, systems integration and outsourcing, will continue to grow during the next five years as a result. Because the government entities described in this report are not known for their rapid change, it is not surprising that the key trends continue from the prior year, as summarized in Exhibit II-1.

Exhibit II-1

State and Local Government Trends

- Increasing budget pressures
- Connectivity/interoperability
- Public data access and dissemination
- Increasing IS solution demand
- Use of mainframes as super-servers
- Privacy and security concerns

Source: INPUT

- *Budget Pressures*—Budget restrictions and reduced funding at all levels continues to be a major concern for both users and vendors. For vendors, the situation is not dissimilar to that in the private sector, in which many companies have delayed funding new projects due to lack of capital. The result has been increased focus on shorter and less costly projects that have a demonstrable and measurable short-term payback. Short-term payback can be a critical factor. Projects that provide a clearly identifiable early return frequently may receive funding that important long-term projects may not.

- *Connectivity/Interoperability*—The importance of connectivity and interoperability is growing in state and local government. As in the federal government, there is need for connectivity between a wide variety of software and hardware types. To date, state and local governments have focused on LAN connectivity, but demand is growing for comprehensive intra- and inter-department networks that will connect to large databases. Open systems standards are also important.

- *Public Data Access*—Public access to information and the ability to disseminate services electronically continues to be an important requirement for both state and local governments. Direct interaction with the public through on-line systems to request information and request and receive benefits is becoming more widespread.

- *IS as a Solution*—The growing tendency to focus on information systems (as a solution) can be a double-edged sword. On the one hand, vendors who can demonstrate tangible results can find greater opportunities. On the other hand, many state and local government executives are not comfortable with the high investment associated with technology solutions, making the sales job more difficult.

- *Super-Servers*—Although growth of PCs and LANs will continue to proliferate, large mainframe systems (probably acting as servers) will still be needed to support the large databases, as well as new storage-intensive applications such as electronic imaging and geographic information systems.

- *Privacy and Security*—The existence of on-line systems that allow direct public access is a trend that introduces significant privacy concerns, as well as the need for strict security controls. These concerns can inhibit the drive to improve efficiency and reduce costs by automating manual systems or access. In recent months, public awareness of security concerns has been heightened by continuing publicity about Internet security breaches. Although the intrusions are generally minor, public concerns about confidentiality and accessibility become more pronounced, especially for those who are not computer literate.

B
Events

A number of events affecting state and local governments during 1994 and 1995 attest to the budget pressures and difficulties faced by IS management and state and local government officials. Other events serve as strong indicators of the type of information systems needed to meet future requirements.

- As the wealthiest county in the state, Orange County, California revealed in late 1994 that its investment fund lost over $2 billion (nearly 30%) as the result of investments made in derivatives markets. To date, this is the largest loss for a local government entity ever recorded, and it has caused many municipal governments to become concerned about the quality of management and the safety of their own investment funds.

- The Iowa Communication Network (ICN) connects health care providers, educators, students, local government officials, and state agencies over a $100 million fiber optic network that offers services to 125 sites.

- In September 1994, the State of Utah awarded a contract to US West Communications for the construction of the Utah Community of Interest Network (CoIN). The purpose of this project is to give citizens in mostly rural Utah access to "distance" learning, telemedicine, banking and the video-related services available through the Internet. CoIN will be built on the Utah Education Network, already extant.

- North Carolina has a plan comparable to Utah's that will use BellSouth Telecommunications, Inc., to create a statewide, ATM-based, fiber optic network. The $160 million, 116,000-fiber-mile project is currently one of the most ambitious in the world.

- In 1994, the State of California's Department of General Services awarded Pacific Bell, Compression Labs, Inc., and Tele-Images, Inc. a joint contract to develop a videoconferencing system for government use. The goal of implementing such a system is to reduce the state's employee travel budget, which is estimated at over $100 million per year.

- In 1995, a nonprofit consortium called Smart Valley Inc. took the first steps to install the Smart County Public Access Network, offering public access to the Internet global computer network. The group hopes to stimulate interest in the Internet among individuals who might not otherwise have access to sophisticated computer technology. Smart Valley will set up public access sites in government buildings, libraries and retail stores in Santa Clara County, California. The Smart Valley Inc. network will consist of high-end PCs loaded with Mosaic-type Internet navigational tools. Pacific Bell will install the necessary phone lines to hook the PCs to the Internet as part of a $2 million grant to the Smart Valley group.

- Nebraska Online provides access to state records, including business and incorporation records. Entrepreneurs can find out about public meetings and eventually will be able to review contracts being put out to bid. Some of the system's services, such as the State Bar and Nebraska's bankers' associations, require users to register in order to use the information.

- With GeorgiaNet, entrepreneurs in the Peach State can keep track of current legislation affecting small business and find out about public meetings of legislative committees and agencies. Also accessible are Georgia's incorporation files, as well as all laws governing the state. GeorgiaNet will add traffic reports beginning in January 1996, just in time for the Olympics. The subscription-based service costs $75 per year, plus a 45-cent-per-minute on-line charge. Libraries will be able to obtain a special software program so library users can access GeorgiaNet at no charge.

C
Information Systems (IS) Issues

In 1994 and 1995, INPUT conducted interviews with state and local government information systems users. The two key issues most commonly expressed are summarized in Exhibit II-2.

Exhibit II-2

Key Issues: IS Department Managers

- Limited budgets
- Increasing demand for connectivity and new applications to improve efficiency and reduce costs requires complex solutions

Source: INPUT

- *Budgets*—Department executives in this industry sector increasingly expect to improve operational and cost effectiveness by using information technology. However, they are frequently unable to provide funding for systems projects.
  - The budgeting process in many state and local governments remains an inhibiting factor to technology planning, due to the practice of using current operating expenses as a baseline, with incremental amounts reflecting cost increases.
  - The budget pressures and staff reductions noted over the last five years continue, and few of the users interviewed plan to use in-house resources exclusively to implement new applications. Most will implement new applications with user department personnel and packaged software, or with the assistance of outside professional services firms/systems integrators and outsourcing vendors.
- *Complex Solutions*—As in the private sector, systems solutions are becoming increasingly complex. Until recently, systems were developed to meet the specific needs of a department or work group within a department. Users and officials now demand integrated systems for human resources, social services, taxes, courts, criminal justice, and public safety. Systems solutions can span multiple departments and agencies and may need to integrate a wide variety of functions across a large geographic area.

Most state or local governments do not have comprehensive plans for the use of technology. Many require an annual technology plan, but the plan is frequently at the level of a single department. Few state or local

governments have developed and acted upon comprehensive plans to address needs over the next five years, although many are now considering them.

The integration of existing data and applications with new technologies such as client/server is already an issue in this sector. The State of Oregon directory synchronization project is one example of this. However, unless the application of these new technologies can demonstrate a clear reduction in costs, funding is not likely to be forthcoming.

Major IS issues, as noted in INPUT's state and local government reports for the last few years, will continue to be substantially the same over the next several years. Funding will remain the significant problem, and IS managers' top priority for new development will be to respond to legislated requirements. For entities that have comprehensive technology plans, there will be limited ability to execute them—again, as a result of budget limitations.

D
End-User Issues

End-user issues in the state and local government sector were identified through discussions with the users themselves, as well as with IS managers and vendors. Vendors should consider the issues identified in Exhibit II-3 when planning product and service offerings to this sector.

Exhibit II-3

End-User Issues

- Connectivity and the Internet
- Support of new desktop applications
- Legislative mandate

Source: INPUT

- *Connectivity*—This continues to be a major concern for end users because there are many needs that involve access by legislators, city planners, controllers or program offices to financial, human resource, and benefits and services databases. As a result, users in this sector continue to look to vendors to provide network expertise. The Internet is widely considered a low-cost alternative to private network extensions.

- *Desktop Support*—Training and support is important to state and local government users. Management—and, increasingly, vendors—must plan to adequately train and support users. Vendors interested in this sector should explore user training and support service offerings that build relationships while providing cost-effective training and support. This need is especially significant for desktop applications, where formal structured support assures maximum productivity and the best return on the investment in workstations and terminals.

- *Legislative Mandate*—More and more of the work of state and local government departments is being dictated by legislative mandate. New legislation to provide benefits to the public can frequently impact existing IS budgets or software development schedules. As a result, priority conflicts can occur when the demands of legislation must be met, causing other projects to be postponed (or even abandoned). There is no simple solution to this dilemma; it is simply a reality of this market sector.

Users are having an increasingly noticeable role in planning and implementing projects, while the role of the IS department continues to shrink. Systems integrators and processing services firms will play a substantial role in working with these users, especially on issues involving connectivity and interoperability.

III

Information Services Market

A
Applications

In the more than 86,000 state and local government entities, there exists a wide range of information systems, and they range from old mainframes and early PCs to sophisticated networks using advanced systems and software. Ironically, smaller cities and towns, as well as small counties—some late to install information systems—often have much more sophisticated technology than do their larger counterparts and state governments, which are struggling with systems installed in the 1970s and early 1980s.

Applications at the state and local government level can be grouped into several general categories:

- Judicial systems
- Public order and safety
- Public finance, taxation and monetary policy
- Administration of human resources
- Administration of environmental housing and quality programs
- Administration of economic programs
- Other public administration systems

Judicial systems—include traffic courts, district courts, family courts, superior courts and many other types of courts.

Public order and safety—includes state police and highway patrols, city police departments and sheriffs' offices, fire protection, legal counsel and protection (such as public defenders' and prosecutors' offices), and correctional institutions.

In order to improve system functionality and efficiency, counties are trying to integrate justice and public order systems that tie police, sheriff, prosecutors,

courts, and corrections into a single unified system called a criminal justice information system, or CJIS.

Public finance, taxation, and monetary policy—all include organizations primarily engaged in financial administration and taxation, such as budget agencies, controllers' offices, property tax assessors' offices, state tax commissions, tax departments, and treasurers' offices. Also included are purchasing control and inventory management.

Human resources administration—includes the management (at both state and county level) of educational programs, public health programs, and social manpower and income maintenance programs, as well as internal systems such as payroll and employee management.

Housing and quality programs—include managing environmental programs, housing and urban development programs. Within this group are environmental protection agencies, environmental quality and control agencies, land management agencies, community development agencies, county development agencies, urban planning commissions, and zoning boards and commissions.

Economic program administration—includes: general economic program management; regulation and administration of transportation programs; regulation and administration of communication, electric, gas and other utilities; and regulation, licensing and inspection of miscellaneous commercial sectors. Though this group shares some responsibility with federal agencies, it also includes numerous licensing and inspection offices, transit-related bureaus, and alcoholic beverage control boards.

Other applications—include voter registration, election returns, corrections and sanitation.

B
IS Objectives and Plans

IS management objectives, shown in Exhibit III-1, reflect concerns about funding constraints, as well as the cost and management's understanding of technology. With the exception of the addition of Internet capability, they have been consistent over the past few years.

Exhibit III-1

IS Management Objectives

- Update and expand existing systems
- Address connectivity/interoperability issues
- Use the Internet when possible
- Train end users
- Improve standardization
- Reduce operating costs

Source: INPUT

- *Systems Updates and Expansion*—Updating and expanding existing systems is a primary concern for many state and local government officials. It has arisen from the need to connect in-place systems in different departments to meet new and growing service demands.

- *Connectivity/Interoperability*—Most state and local governments recognize the need for major network enhancements to implement integrated systems. Connecting these disparate resources so they can interact efficiently and effectively using telecommunications resources is a complex challenge and a significant objective for most public entities.

- *Using the Internet*—The Internet is a network of networks. It can interconnect many different sets of users and expand data communications access. Moreover, it is partially funded by governments and universities and, therefore, costs less than equivalent commercial data network services. As a result, the Internet will increasingly be an important resource for state and local governments, which need to provide more public data access for outside users. In addition, it will be a unifying factor, pulling together many internal users who use separate E-mail and outside data services networks.

- *Training*—Vendors should focus their training on the day-to-day technology user—e.g., the end user. IS departments already possess most required technical skills, although these are diminishing as IS budgets are reduced. But the end user, increasingly thrust into IS responsibilities as a result of legislative or budgetary changes, will continue to require desktop and applications skills to use the available IS resources effectively. Training and education services are one way to obtain such knowledge and skills.

- *Standardization*—Numerous problems exist as a result of diverse, incompatible systems. In the 1990s, this fact has become apparent to many state and local governments. A growing number of users and IS managers are becoming concerned with standardization for desktop applications and the networks that connect them. The Internet will be a useful resource in this area, as it becomes a *de facto* standard.

- *Operating Cost Reduction*—Government revenues continue to be reduced at most levels, resulting in ongoing pressures to reduce the cost of government. More and more senior managers—entrepreneurial managers—realize that they already have many of the pieces in place to implement comprehensive systems that can eliminate unnecessary work, reduce fraud and abuse, and ultimately streamline government and reduce costs. Integration remains the key to assembling the comprehensive systems they need.

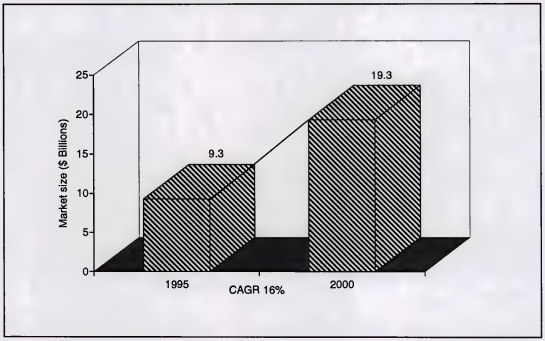
C
Information Services Market Forecast

1. Overview

INPUT forecasts that user expenditures for information systems in state and local government will be $9.3 billion in 1995. This represents a growth of 15% over 1994. The compound annual growth rate (CAGR) will average 16% for the next five years, resulting in a market of almost $19.3 billion by 2000, as shown in Exhibit III-2.

Exhibit III-2

State and Local Government Market, 1995-2000



Source: INPUT

The 16% CAGR reflects the following factors:

- There is increasing focus on integrating existing applications to improve service delivery and reduce costs.
- The growth rate is expected to rise as cities, counties and states find ways to use information systems to improve both cost and operational effectiveness.
- There is ever-growing demand for new and creative ways to apply technology.
- Due to monetary considerations, there is an ongoing need to automate office processes to meet increasing service demands without adding more workers.

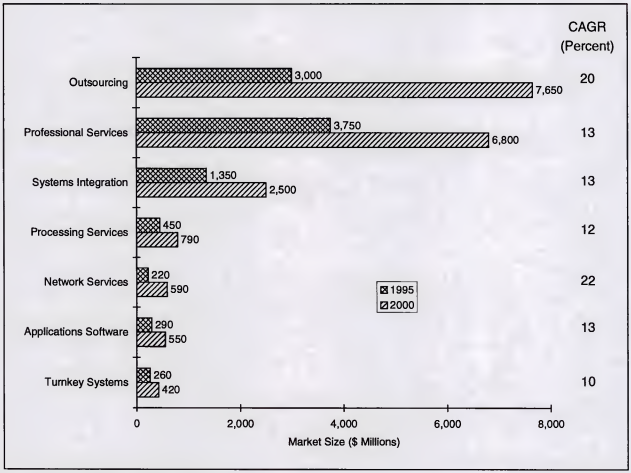
2. Product/Service Sector Analysis

Despite the ongoing fiscal difficulties faced by state and local governments, the market has a stable foundation and is expected to remain strong. Analysis of the various product and service sector reveals areas of particular strength, as shown in Exhibit III-3.

- *Professional Services*—The professional services market remains strong, as governments continue to use outside services for software development and IS consulting. Expenditures in 1995 are estimated at better than $3.7 billion and should grow at a steady 13% CAGR to $6.8 billion in 2000. In many states, software development, including systems design and programming services, represents half of the professional services expenditures.

Exhibit III-3

Market Forecast by Product/Service Sector, 1995-2000



Note: Numbers have been rounded

Source: INPUT

- *Systems Integration*—Requirements for comprehensive, integrated systems solutions are increasing in states, larger cities, and counties—especially in those areas where existing systems are old and fragmented. The requirement is based on a growing demand from the public for more services, coupled with a shifting of the burden from the federal government to the state and local level. These needs also fuel demand for comprehensive, integrated systems to reduce waste and fraud. Professional services will account for well over half of the $1.3 billion spent in 1995 for systems integration services, and growth in this product/service subsector will remain steady at 15% annually.

- *Outsourcing*—Among counties and large cities, increasing attention is being given to processors that can provide full service at a reduced overall cost—a role generally best filled by an outsourcer. As a result of more and more municipalities, cities, agencies and states quantifying the benefits of fixing costs while improving both functionality and availability, outsourcing will grow at a 20% CAGR (from a 19% growth in 1995) to almost $7.7 billion by 2000. In recognition of the increased importance of client/server- and PC-based applications, desktop operations will be the second fastest growing segment (30% CAGR) of the outsourcing marketplace, led only by business operations (32% CAGR), which is starting from a relatively small base.

- Outsourcing applications operations is another significant growth area. Increasingly, local governments are billing citizens for services such as ambulance runs and false police calls, but they do not possess the staff and systems to collect for these services effectively enough. Thus, government agencies are outsourcing the billing and collection of these types of services, as well as the collection of traffic and parking tickets. Cities and towns that can do this experience a significant increase in collections, while lowering operating expenses.

- *Network Services*—Network applications will remain strong (at a 25% CAGR) due to the continuing need to interconnect networks within and between state and local government agencies. Electronic information services, which form part of the traffic on these networks, will grow at a steady, but less aggressive 12% through 2000. An example of a key information service is NIBRS. Ten states, including Vermont, Colorado and Utah, are now using NIBRS, the FBI's National Incident Based Reporting System, to access data in return for the voluntary submission of information to the system. The NIBRS format has been enhanced to include data-matching features that can correlate information about offenders and victims, identify weapon types and describe locations and settings of criminal activities.

Overall, a 22% growth rate is expected to increase state and local government expenditures on network services to nearly $600 million by 2000.

- *Applications Software*—Applications software expenditures will grow at a five-year CAGR of 13% through the year 2000. As is true in virtually all industries followed by INPUT, expenditure for workstation/PC-based or client-based software products is both the largest segment of this market ($360 million in 2000) and the fastest growing (17%). As centralized facilities either shrink in size or become re-architected as client/server systems, many mainframes and minis are also assuming new roles as servers or super-servers.

- *Turnkey Systems*—Growth in this product/service area will be at a steady 10% CAGR through 2000, with emphasis on the professional services that support these integrated platforms and the software products running on them.

IV

Conclusions and Recommendations

A Conclusions

Based on INPUT's research on the state and local government market, key areas of opportunity have been identified and are summarized in Exhibit IV-1. One all-encompassing attribute of this market is that, due to funding and budget limitations or restrictions, state and local government organizations are more likely than private-sector companies to seek the assistance of information systems vendors to provide cost-effective solutions to the growing number of complex problems and challenges facing this marketplace. A harsh reality is that state and local budgets don't generally have the salary range to compete with the private sector and support the in-house technical skills necessary to deal with today's demands on the IS function.

The key is to recognize that funding limitations in this market are frequently absolute—that is, there is no more money or alternative source of funds. Mandated functions must be performed, but costs are a concern. Vendors that can offer cost-effective solutions to individual or common problems will find that saving money or providing function at least cost is almost always a key consideration in contract awards and vendor selection. Elegant solutions are desirable, but seldom affordable.

Functional areas in which information services opportunities exist in state and local government are listed below. Because so many functions are common to all levels of government, vendors with scalable solutions to the needs of these functional areas will be able to leverage their investment in product or services offerings.

Exhibit IV-1

Key Areas of Opportunity

- Public Access Systems
- Health and Human Services
- Office Automation
- Law Enforcement
- Election Systems
- Financial/Fiscal Control
- Network Services/Internet
- Tax Management
- Human Resources
- Tax Collection
- Payroll
- Dispatch

Source: INPUT

B
Recommendations

The varied nature of successful vendors in the state and local government market accentuates the fact that there are a number of ways to be successful in this sector. Recommendations for vendors are summarized in Exhibit IV-2.

Exhibit IV-2

Recommendations

- Increase awareness of market needs
- Use consulting approach
- Extend and update existing systems
- Replicate applications
- Find and support the entrepreneur

Source: INPUT

- *Increase Market Awareness*—Many vendors do not devote sufficient effort to monitoring developments in the state and local government market. This is a mistake, because actions at one level of government are often the result of actions or legislation initiated at a higher level of government. Successful vendors understand this interrelationship and apply it to their specific market areas in order to identify product or service opportunities at the earliest possible time. If the federal government is planning to discontinue providing a service that will then be performed at a state or local level, early knowledge of that decision can provide a vendor with a competitive advantage in the form of early delivery of a state- or local-level solution.

- *Consulting as an Entrée*—Vendors new to the state and local government market should approach it through a consulting services relationship. Consulting establishes credibility and aids the development of awareness regarding IS problems in state governments. States will often award follow-on contracts to vendors who have demonstrated knowledge of their requirements.

- *Extend and Update*—Vendors who can expand existing systems and integrate new technologies without complete replacement will have an advantage. This is another manifestation of the chronic budget limitations facing state and local governments. Accept the reality of their concerns and limitations, and help them to achieve their objectives in spite of these conditions.

- *Application Replication*—To capitalize fully on market expertise, vendors must ensure that most applications developed for one government entity are modular and scalable, so that they can be used with little modification in a corresponding entity in a different jurisdiction. Avoid re-inventing the wheel.

- *Entrepreneurs*—Vendors must find and support the new entrepreneurial breed of managers in state and local government. (Such managers may not always be easy to identify; they may choose to obscure their entrepreneurial activities in order to avoid internal conflicts.) Vendors must understand their needs and motivation, and develop solutions that offer a quick payback on investment. The vendor should also be prepared to assist with any cost-justification exercises.

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A

Forecast Database and Reconciliation

A
Forecast Database

Exhibit A-1 presents the 1995-2000 forecast for the state and local government sector.

Exhibit A-1

State and Local Government
Market Size by Product/Service Categories, 1994-2000
($ Millions)

PRODUCT/SERVICE CATEGORIES	1994 ($)	Growth 94-95 (%)	1995 ($)	1996 ($)	1997 ($)	1998 ($)	1999 ($)	2000 ($)	CAGR 95-00 (%)
INDUSTRY TOTAL	8,078	15%	9,327	10,750	12,406	14,320	16,633	19,296	16%
Professional Services	3,271	14%	3,737	4,237	4,781	5,367	6,072	6,801	13%
- IS Consulting	860	16%	998	1,147	1,314	1,511	1,752	2,006	15%
- Education & Training	470	12%	526	590	654	720	807	896	11%
- Software Development	1,941	14%	2,213	2,500	2,813	3,136	3,513	3,899	12%
Systems Integration	1,197	12%	1,346	1,517	1,720	1,955	2,208	2,480	13%
- Equipment	410	9%	447	487	533	584	637	694	9%
- Software Products	75	8%	81	90	97	107	117	129	10%
- Professional Services	680	15%	782	899	1,043	1,210	1,392	1,586	15%
- Other	32	13%	36	41	47	54	62	71	15%
Outsourcing	2,534	19%	3,018	3,609	4,328	5,203	6,304	7,664	20%
- Platform Operations	502	11%	558	622	691	760	843	936	11%
- Applications Operations	1,238	19%	1,473	1,753	2,086	2,483	2,954	3,516	19%
- Desktop Services	289	28%	370	481	625	813	1,056	1,373	30%
- Network Management	310	22%	378	459	558	678	851	1,069	23%
- Application Management	110	21%	133	161	195	236	285	345	21%
- Business Operations	85	25%	106	133	173	233	315	425	32%
Processing Services	402	12%	452	505	565	630	705	790	12%
- Transaction Processing	402	12%	452	505	565	630	705	790	12%
Network Services	184	21%	222	268	325	395	482	594	22%
- Electronic Information Svcs	62	13%	70	79	89	100	112	124	12%
- Network Applications	122	25%	152	189	236	295	370	470	25%
Applications Software	255	14%	291	328	373	425	483	545	13%
- Mainframe	65	6%	69	72	75	78	81	84	4%
- Minicomputer	50	14%	57	65	73	82	92	101	12%
- Workstation/PC	140	18%	165	191	225	265	310	360	17%
Turnkey Systems	235	11%	261	286	314	345	379	422	10%
- Equipment	98	8%	106	115	125	134	143	152	7%
- Software Products	92	12%	103	113	125	138	154	172	11%
- Professional Services	45	16%	52	58	64	73	82	98	14%

Source: INPUT

B
Forecast Reconciliation

Exhibit A-2 provides the forecast reconciliation for the state and local government sector.

Exhibit A-2

State and Local Government
1995 MAP Database Reconciliation
($ Millions)

PRODUCT/SERVICE CATEGORIES	1994 Market				1999 Market				94-99	94-99
	1994 Market (Fcst) ($M)	1995 Report (Actual) ($M)	*Variance From 1994 Forecast* ($M)	(%)	1994 Market (Fcst) ($M)	1995 Report (Fcst) ($M)	*Variance From 1994 Forecast* ($M)	(%)	CAGR per data '94 Rpt (%)	CAGR per data '95 Rpt (%)
Total	7,769	8,078	309	4%	15,226	16,633	1,407	9%	14%	16%
Professional Services	3,234	3,271	37	1%	5,572	6,072	500	9%	11%	13%
Systems Integration	1,161	1,197	36	3%	2,047	2,208	161	8%	12%	13%
Outsourcing	2,291	2,534	243	11%	5,550	6,304	754	14%	19%	20%
Processing Services	415	402	-13	-3%	751	705	-46	-6%	13%	12%
Network Services	182	184	2	1%	468	482	14	3%	21%	21%
Applications Software	252	255	3	1%	460	483	23	5%	13%	14%
Turnkey Systems	234	235	1	0%	378	379	1	0%	10%	10%

Source: INPUT

Significant variances between the 1994 and 1995 INPUT forecasts are:

1994 Market

- Outsourcing was understated by 11% in the 1994 forecast for this sector. The figures shown for this product/service sector reflect adjustments to the market size based upon additional updates to INPUT's outsourcing contract database. Due to the length of many outsourcing contracts, this adjustment also affects the 1999 market forecast.

- Systems integration spending was understated by 3%, as this activity becomes more important in the expansion and longevity of existing systems.

- Processing services spending dropped below expectations in 1994 as a result of increased sensitivity to the generally higher costs of "pay-as-you-go" transaction-based systems.

1999 Market

- The most significant variance in the forecast for the 1999 market was for outsourcing. As noted above, this variance reflects the increasing trend toward outsourcing demonstrated by recent contract awards.

Five-Year Growth

- The variances in growth rates over the 1994-1999 period do not exceed 2%, reflecting the inherent stability of this market.